SunBeam Institute of Information Technology

Java Assignment 3

1) Create a class Point2D , in package - "com.app.geometry" : for representing a point in x-y co-ordinate system. Create a parameterized constructor to init x & y co-ords. Add a method to return string form of point's x & y co-ords

Hint : public String getDetails())

Add isEqual method to Point2D class :a boolean returning method : must return true if n only if both points are having same x,y co-ords or false otherwise.

Add calculateDistance method to calculate distance between current point and specified point & return the distance to the caller.

Hint : Use distance formula . Use java.lang.Math class methods --sqrt, pow etc.

Write TestPoint class , in package "tester" , with a main method, Accept co ordinates of 2 points from user (Scanner) --to create 2 points (p1 & p2)

Use getDetails method to display point details.(p1's details & p2's details)

Invoke isEqual & display if points are same or different (i.e p1 & p2 are located at the same position)

 If they are not located at the same position , display distance between p1 & p2

2) (Credit Limit Calculator)
Develop a Java application that determines whether any of several department-store customers has exceeded the credit limit on a charge account.
For each customer,the following facts are available:
a) account number
b) balance at the beginning of the month
c) total of all items charged by the customer this month
d) total of all credits applied to the customer's account this month
e) allowed credit limit.
The program should input all these facts as integers, calculate the new balance (= beginning balance+ charges – credits), display the new balance and determine whether the new balance exceeds the customer's credit limit. For those customers whose credit limit is exceeded, the program should display the message "Credit limit exceeded".